

8. INCUBATION PERIOD AND 'MORTALITY RATE' (?)
IN A BROOD OF THE MAGPIE-ROBIN [*COPSYCHUS*
SAULARIS (LINN.)]

Looking through my notes, I find the following entries in respect of the Magpie-robin which, as throwing some light on the period of incubation and 'rate of mortality' (?) of the chicks, may be worthy of record.

A nest was discovered on 28 February 1953 in a hole *ca.* 9" deep at the tip of a 5-foot bamboo stake in the fence forming the boundary of the Zoological Gardens at Trivandrum. The fence was in bad repair and the stake, loose from its anchorage was leaning forward at such an angle that the nest was hardly more than 3 ft. from the ground.

- 28-2-1953. Four eggs, greenish and liberally blotched.
- 14-3-1953. One egg hatched in the afternoon.
- 15-3-1953. The remaining three hatched.
- 24-3-1953. Nestlings show a white patch on their bodies; very warm and humid.
- 29-3-1953. Nestlings looking well.
- 30-3-1953. At 10.30 a.m., three of the nestlings had disappeared and the 4th was crouched at the bottom of the nest; sometime later, it was found in an erect posture and quite dead. No trace of injury on the nestling; no sign of the others in the neighbourhood; the male parent was found later, calling from a nearby tree. The dead nestling was weighed (9.6 gms.) and transferred to spirit.

It can be seen from the above, that 15 days had elapsed between the discovery of the eggs and their hatching. Assuming that the nest was found the day the clutch was completed, perhaps a coincidence, or within a day or 2 of it which is more probable, the incubation period may be taken to be 15 to 18 days.

The fate of the nestlings remains a mystery. If they had been destroyed by predators, it is hard to see how the fourth could have escaped without so much as a trace of injury. Death from excessive heat or disease or starvation can also be ruled out as in such cases the victims should have been found dead or dying, within the nest itself. And besides, they were looking so well only the previous day!

There is a probability that the young birds had flown from the nest. This seems plausible in the light of the observations made by Dr. M. Nice in the course of her study of the Song Sparrow in America, that in Passerine species the majority attain flight proficiency at about 17 days of their hatching. In the present case, the chicks, already 15 days in the nest, may have gained sufficient strength to fly from the nest. This they might have done and in the 'stampede' that followed, their weakling brother (or sister) might have got choked to the point of death.

An examination of the preserved specimen showed that it had its wing feathers well developed, but the tail was nothing more than a flat knob with no feathers at all. The head and body were bare,

save for a small patch of short, black feathers just behind the bill and a few feathers in a line at the beginning of the spinal ridge. The earliest rudiments of feathers could, however, be made out as a triangular patch on the chin, a thin line along each lower jaw and as a large inverted 'V' commencing from the gullet.

The white patch on the body referred to earlier, which had the appearance of a fungal growth, has disappeared in spirit.

'GOKULAM',
NANTENCODE,
TRIVANDRUM.

N. G. PILLAI

[It appears more than probable that the three chicks left the nest in the natural course and that the fourth, being a weakling, was thereafter abandoned to its fate by the parents. This is not uncommon in passerine birds.—Eds.]

9. SOME NOTES ON THE PLUMAGES OF *CENTROPUS SINENSIS* (STEPHENS)

Stuart Baker (Fauna Vol. 4, p. 190) describes the young of *C. s. sinensis* (Stephens)—'Distribution: Northern India, roughly from Sind and Kashmir through the North-West Provinces, Punjab and United Provinces; the sub-Himalayas as far east as Eastern Assam and south to the Ganges Valley in Bihar and Bengal'—as having the plumage barred in young birds with a great deal of variation. He also records his personal observations regarding females, but not males, breeding in such juvenile plumage. He does not refer to the young of the other two races, i.e., *C. s. intermedius* (Hume)—'Assam, south of the Brahmaputra; Cachar and Sylhet, Tippera, Chittagong, Comilla, Burma, North Malay State, Siam and the Indo-Chinese countries, Yunnan and Hainan'—and *C. s. parroti* Stres.—'Ceylon and India, south of the range of *sinensis*'—implying that they are also barred as in the nominate race.

Whistler and Kinnear in their report on the Eastern Ghats Ornithological Survey, *JBNHS*, 37: 528, drew attention to the question of juvenile plumages in the Crow Pheasant (*Centropus sinensis*). They found some young similar to the adults, while others wore a barred plumage. They thought that this might be of sub-specific significance, but stated that they did not have sufficient material to settle the point.

The Society's collection contains 7 juvenile skins which are barred on the parts mentioned against them:

- ♂ (Assam). Secondaries and upper tail coverts.
- o ? (Bihar). Wings and underparts; tail missing.
- o ? (Bihar). Wings, underparts and entire tail.
- ♀ (Bihar). Secondaries and central tail feathers.
- * ♀ (Nepal). Most secondaries, central tail feathers and tail coverts.
- ♂ (North Shan State). All wing quills and coverts; traces on all tail feathers and underparts.
- * ♀ (Promé Dist., Burma). Most secondaries; upper wing coverts and central tail feathers.

* Bear traces of duskiness, see *infra*.